

CLAIMS

What is claimed is:

1. A bimetal snap disc thermostat comprising:
 - a phenolic body assembly having a predetermined thermal limit;
 - a switch in said body assembly;
 - a bimetal snap disc mounted on said body assembly;
 - an operator operating said switch in response to snap movement of said bimetal snap disc;
 - said snap disc and said body together defining a heater chamber;
 - a pair of heater terminals extending outwardly from said heater chamber through apertures provided in said body assembly;
 - at least one resistance heater within said heater chamber in a closely spaced proximity to said snap disc;
 - said body assembly including a partition bounded in a first direction by said heater chamber and in a second direction by said apertures.
2. A bimetal snap disc thermostat as set forth in claim 1 wherein said operator is movably supported by said partition.
3. A bimetal snap disc thermostat as set forth in claim 2 wherein said partition comprises a surface operative to reduce the volume of said heater chamber.

4. A bimetal snap disc thermostat as set forth in claim 1 wherein said thermostat includes a second resistance heater spaced from said at least one resistance heater, said second resistance heater having a pair of leads secured to respective ones of said terminals.

5. A bimetal snap disc thermostat as set forth in claim 1 wherein said resistance heater is insulated from said body assembly and said snap disc only by air within said heater chamber.

6. A bimetal snap disc thermostat as set forth in claim 1 wherein said at least one resistance heater is supported within about .082" to .062" from said bimetal snap disc.

7. A bimetal snap disc thermostat as set forth in claim 6 wherein the minimum spacing between said resistance heater and said body is .015".

8. A bimetal snap disc thermostat comprising:

- a body assembly;
- a switch in said body assembly;
- a bimetal snap disc mounted on said body assembly;
- an operator operating said switch in response to snap movement of said bimetal disc;
- said disc and body assembly cooperating to define a heater chamber adjacent to said disc;
- a plurality of resistance heaters supported in said heater chamber by a pair of heater terminals;
- said heaters being supported in spaced relationship to said housing adjacent said bimetal snap disc; and
- said housing including a partition operative to reduce the volume of said chamber and increase the efficiency of heat transfer from said heaters to said bimetal snap disc.

9. A bimetal snap disc thermostat as set forth in claim 8 wherein said heating chamber contains air, said air occupying the entire space between said resistance heater and said bimetal snap disc.

10. A bimetal snap disc thermostat as set forth in claim 9 wherein said resistance heater is positioned within about .082"-.062" from said bimetal snap disc.

11. A bimetal snap disc thermostat as set forth in claim 10 wherein said resistance heaters are positioned on opposite sides of said operator.

12. A bimetal snap disc thermostat comprising:

- a body;
- a switch positioned within said body;
- a bimetal snap disc mounted on said body;
- an operator operative to move said switch between a closed position and an open position in response to snap movement of said snap disc;
- said body and said snap disc defining a substantially enclosed heater chamber,
- a heater element disposed within said heater chamber, said heater having first and second leads;
- a pair of terminals supported by said body and extending outwardly therefrom for connection to a power supply, said first and second leads being secured to respective ones of said terminals whereby power is supplied to said heater element, said terminals being operative to suspend said leads and said heater element within said chamber in spaced relationship to said body.